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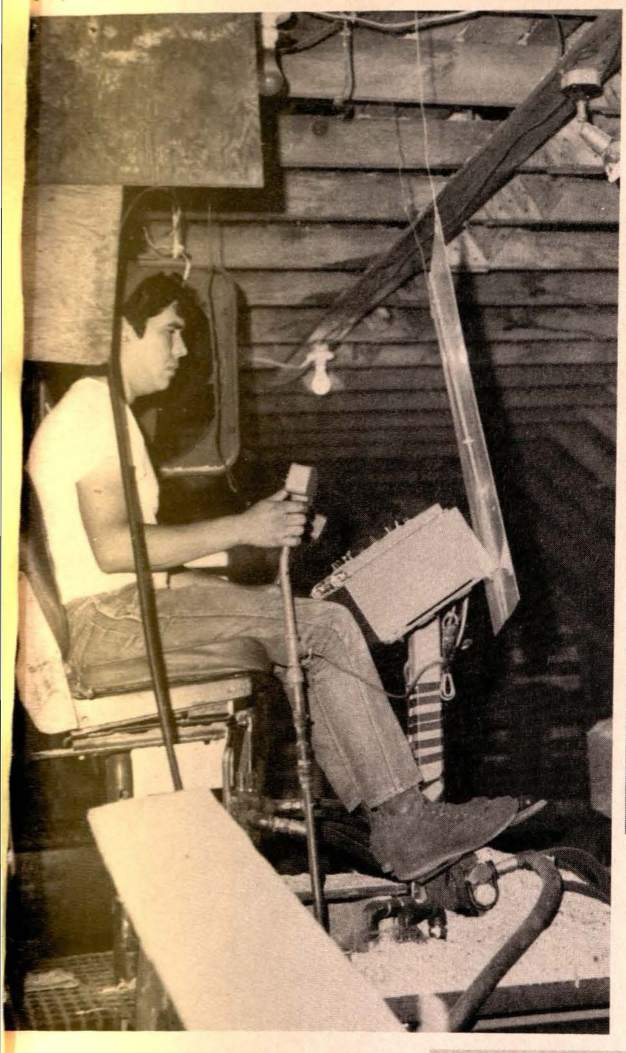
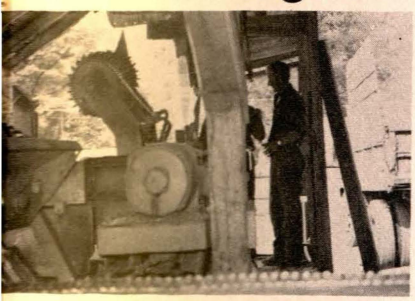
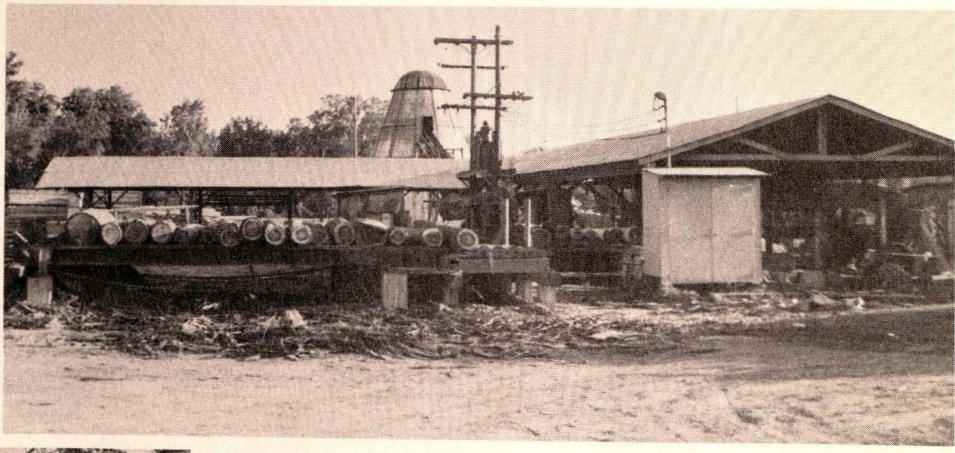


INDIANA SAW LOG PRODUCTION & SAWMILL INDUSTRY, 1971

ames e. blyth
onald h. mcguire





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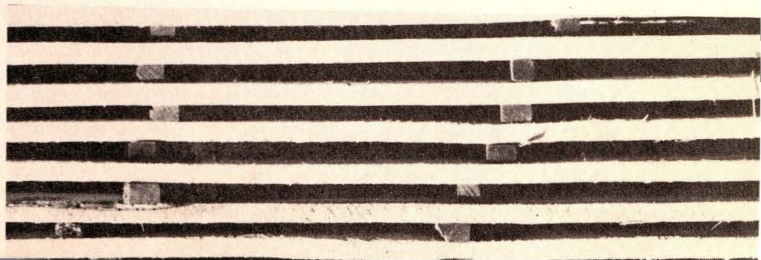

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1974. Indiana saw log production and sawmill industry, 1971. North Cent. For. Exp. Stn., St. Paul, Minn. 23 p., illus. (USDA For. Serv. Resour. Bull. NC-20)

Shows Indiana saw log production by species and State of destination in 1971, and saw log receipts in Indiana by species, State of origin, and Survey Unit. Comparisons with similar data in 1966 are made and reasons for changes in production and receipts are given. Lumber market conditions and sawmill size and locations are discussed. Gives the volume of wood and bark residue produced at Indiana sawmills in 1971 by type of use, by county, and by softwoods and hardwoods.

OXFORD: 832.10:792:832.1(772). KEY WORDS: receipts, wood residue, bark, markets, county.

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INDIANA SAW LOG PRODUCTION AND SAWMILL INDUSTRY, 1971

James E. Blyth and Donald H. McGuire

SAW LOG PRODUCTION

In 1971, saw log production in Indiana reached 235 million board feet; up 5 percent from the 1966 total. All but 5 million board feet were processed in Indiana (table 1). Out-of-State log shipments went primarily to Kentucky; small quantities were shipped to Ohio and Illinois.

Major species harvested were red oak (including black oak), white oak, yellow-poplar, hard maple, and soft maple.[1/] Compared with 1966, output of red oak saw logs increased 12.5 million board feet and of hickory 6.8 million board feet, while

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1/ Common and scientific names of all species mentioned in this report are listed on page 23.

Table 1.--*Saw log production by species and State of destination, Indiana, 1971*

(In thousand board feet)[1/]

SPECIES	TOTAL PRODUCTION	PRODUCTION SHIPPED TO			
		INDIANA	ILLINOIS	KENTUCKY	OHIO
SOFTWOODS:					
SHORTLEAF PINE	18	18	--	--	--
VIRGINIA PINE	130	130	--	--	--
OTHER PINE	23	23	--	--	--
TOTAL SOFTWOODS	171	171	--	--	--
HARDWOODS:					
WHITE OAK	20,896	20,227	--	477	192
RED OAK	49,475	47,247	--	1,950	278
BLACK OAK	27,393	27,380	--	13	--
PECAN HICKORY	702	683	--	--	19
OTHER HICKORY	13,509	13,509	--	--	--
HARD MAPLE	17,824	17,787	--	1	36
SOFT MAPLE	16,557	16,221	5	295	36
BEECH	9,097	9,096	--	1	--
SWEETGUM	4,566	4,274	--	292	--
BLACKGUM	1,279	987	--	292	--
ASH	13,822	13,705	7	4	106
COTTONWOOD	13,495	13,165	7	292	31
BASSWOOD	3,366	3,361	--	--	5
ASPEN	89	89	--	--	--
YELLOW-POPLAR	19,972	19,695	103	169	5
BLACK WALNUT	5,825	4,987	26	812	--
BLACK CHERRY	1,618	1,613	5	--	--
ELM	1,493	1,361	--	130	2
SYCAMORE	12,612	12,470	--	130	12
OTHER HARDWOODS	1,621	1,621	--	--	--
TOTAL HARDWOODS	235,211	229,478	153	4,858	722
ALL SPECIES	235,382	229,649	153	4,858	722

1/ INTERNATIONAL 1/4-INCH RULE.

it of black walnut fell 4.3 million
ird feet and of white oak 4.2 million
ird feet.

Much of the increased output of both
l oak and hickory saw logs probably
ild be attributed to the excellent mar-
:s that held up throughout 1971 for both
.lets and railroad ties. Sawmills were
ng all available hardwood species to
et the strong demand for pallets.

SAW LOG RECEIPTS

Indiana sawmills received 252 million
ird feet of logs in 1971 (up 20 million
)m 1966), nearly 32 percent of which was
l and black oak (table 2). Imports from
ier States totaled 22.2 million board
et, more than 80 percent of which was
)m Michigan (7.8 million board feet),
Linois (6.4 million board feet), and
.o (4 million board feet).

In the Lower Wabash Unit,[2/] procurement of saw logs rose 59 percent from the 1966 level. Much of this increase could probably be attributed to greater log availability during land clearing for the following projects: (1) construction of navigation dams on the Ohio River; (2) levee construction on the Wabash River; (3) construction of a power plant and a large water cooling lake created for the plant; and (4) stream and ditch clearings under Public Law 566.

In the Knobs Unit, saw log receipts in 1971 were 27 percent greater than in 1966. This increase probably could be attributed to expansion of existing mills

---

2/ Area Unit used by Forest Survey to make periodic inventories of the Nation's forest resources. See figure 1 for what counties are encompassed in each of the four Forest Survey Units in Indiana.

Table 2.--*Saw log receipts by species and State of origin, Indiana, 1971*

(In thousand board feet)[1/]

SPECIES	TOTAL RECEIPTS	RECEIPTS FROM							
		INDIANA	MICHIGAN	ILLINOIS	KENTUCKY	OHIO	IOWA	MISSOURI	OTHER
SOFTWOODS:									
SHORTLEAF PINE	18	18	--	--	--	--	--	--	--
VIRGINIA PINE	130	130	--	--	--	--	--	--	--
OTHER PINE	23	23	--	--	--	--	--	--	--
TOTAL SOFTWOODS	171	171	--	--	--	--	--	--	--
HARDWOODS:									
WHITE OAK	22,196	20,227	765	549	338	273	--	--	44
RED OAK	50,501	47,247	1,627	806	215	606	--	--	--
BLACK OAK	29,581	27,380	1,219	431	344	207	--	--	--
PECAN HICKORY	705	683	--	22	--	--	--	--	--
OTHER HICKORY	14,324	13,509	256	318	150	91	--	--	--
HARD MAPLE	19,890	17,787	1,352	195	45	511	--	--	--
SOFT MAPLE	17,838	16,221	532	638	77	370	--	--	--
BEECH	9,652	9,096	385	73	43	55	--	--	--
SWEETGUM	4,393	4,274	--	58	60	1	--	--	--
BLACKGUM	1,013	987	--	8	18	--	--	--	--
ASH	14,683	13,705	459	317	101	101	--	--	--
COTTONWOOD	13,774	13,165	129	430	15	35	--	--	--
BASSWOOD	3,939	3,361	357	44	5	172	--	--	--
ASPEN	89	89	--	--	--	--	--	--	--
YELLOW-POPLAR	20,667	19,695	212	274	436	50	--	--	--
BLACK WALNUT	10,526	4,987	320	1,737	488	1,496	407	885	206
BLACK CHERRY	1,806	1,613	100	31	21	20	--	--	21
ELM	1,416	1,361	3	49	2	1	--	--	--
SYCAMORE	12,990	12,470	44	371	56	49	--	--	--
OTHER HARDWOODS	1,690	1,621	32	30	6	1	--	--	--
TOTAL HARDWOODS	251,673	229,478	7,792	6,381	2,420	4,039	407	885	271
ALL SPECIES	251,844	229,649	7,792	6,381	2,420	4,039	407	885	271

1/ INTERNATIONAL 1/4-INCH RULE.

and erection of a few large mills in this Unit during the period 1966-1971.

Log procurement fell in the Northern Unit (19 percent) and in the Upland Flats Unit (6 percent). In the Northern Unit, the availability of logs apparently was adversely affected by such activities as the continued clearing of forest land for crop production, urban development, utility rights-of-way, and highway expansion.

In 1971, the Knobs Unit had replaced the Northern Unit as No. 1 among the four Survey Units in log volume received. Sawmills in the Knobs Unit received 37 percent of the saw log receipts in the State, which included 49 percent of the yellow-poplar receipts (table 3). In the Northern Unit, sawmills acquired 35 percent of the total receipts, which included 52 percent of the hard maple receipts and 63 percent of th walnut receipts.

SAWMILL LOCATION AND SIZE

Eight of 17 counties in which sawmills produced 5 million or more board feet of lumber in 1971 were in the Knobs Unit (fig. 1). Lumber production is negligible in the northwestern counties of the Northern Unit, which are heavily industrialized.

Of the 385 mills active in 1971, 166 were in the Knobs Unit, 127 in the Northern Unit, 52 in the Lower Wabash Unit, and 40 in the Upland Flats Unit. Althou the majority of mills are concentrated i the southern third of the State, a signi ficant number of large mills are in the north.

Table 3.--*Saw log receipts in Indiana by species and Survey Units, 1971*

(In thousand board feet)[1/]

SPECIES	STATE TOTAL	LOWER WABASH UNIT	KNOBS UNIT	UPLAND FLATS UNIT	NORTHERN UNIT
SOFTWOODS:					
SHORTLEAF PINE	18	--	18	--	--
VIRGINIA PINE	130	--	130	--	--
OTHER PINE	23	--	--	23	--
TOTAL SOFTWOODS	171	--	148	23	--
HARDWOODS:					
WHITE OAK	22,196	3,853	8,470	1,102	8,771
RED OAK	50,501	12,083	22,126	2,033	14,259
BLACK OAK	29,581	5,793	12,050	1,354	10,384
PECAN HICKORY	705	366	170	10	159
OTHER HICKORY	14,324	2,642	6,876	722	4,084
HARD MAPLE	19,890	2,454	6,389	685	10,362
SOFT MAPLE	17,838	6,642	5,191	302	5,703
BEECH	9,652	1,357	3,638	840	3,817
SWEETGUM	4,393	1,315	2,223	550	305
BLACKGUM	1,013	204	685	103	21
ASH	14,683	3,264	4,871	504	6,044
COTTONWOOD	13,774	5,067	3,487	167	5,053
BASSWOOD	3,939	448	438	105	2,948
ASPEN	89	--	27	62	--
YELLOW-POPLAR	20,667	5,833	10,084	1,297	3,453
BLACK WALNUT	10,526	616	794	2,432	6,684
BLACK CHERRY	1,806	458	533	113	702
ELM	1,416	362	500	76	478
SYCAMORE	12,990	4,030	4,512	776	3,672
OTHER HARDWOODS	1,690	205	598	222	665
TOTAL HARDWOODS	251,673	56,992	93,662	13,455	87,564
ALL SPECIES	251,844	56,992	93,810	13,478	87,564

1/ INTERNATIONAL 1/4-INCH RULE.

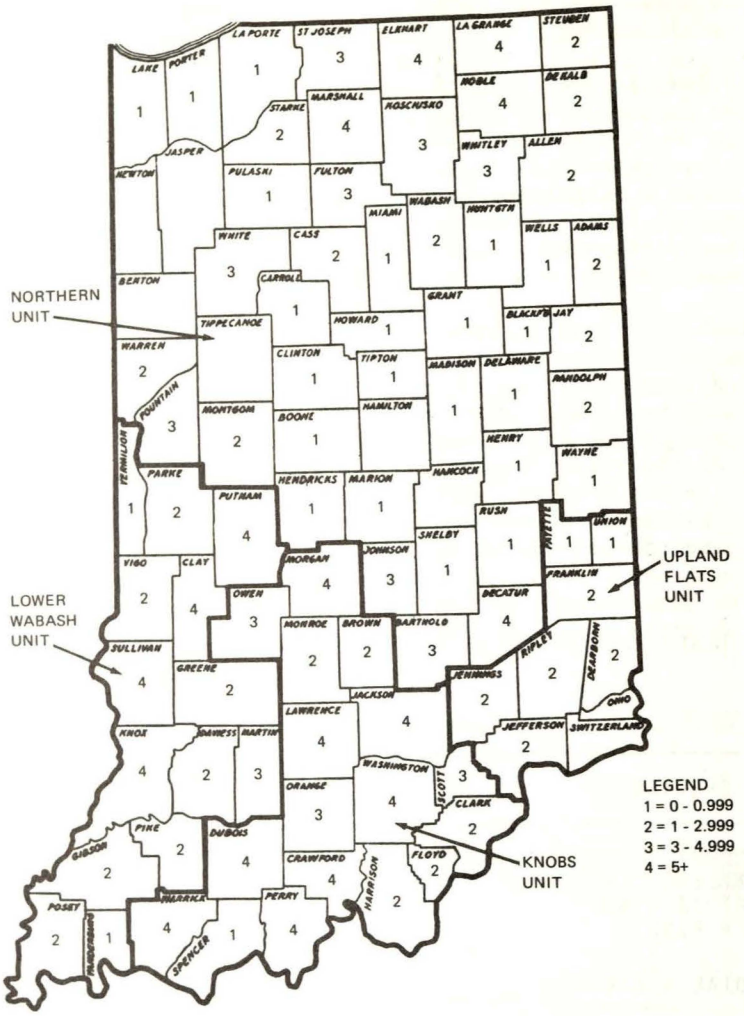

Figure 1.--Lumber production (in million board feet) in four Forest Survey Units in Indiana by county, 1971.

In figure 2, these mills are shown by unty in three lumber production size-classes: all, less than 0.5 million board feet; dium, 0.5 to 0.999 million board feet; d large, 1.0 or more million board feet. e number of mills by Unit follows:

Unit	Small	Medium	Large
ower Wabash	28	7	17
nobs	118	14	34
pland Flats	33	5	2
orthern	77	26	24
Total	256	52	77

Ninety-five fewer mills operated in 1971 than in 1966. Most of the mills that had closed were small mills in the Knobs Unit, cutting less than 500,000 board feet annually. Small mill closures are a continuation of the long-term trend toward larger average mill size. Larger mills usually have proven to be more efficient in reducing unit production costs.

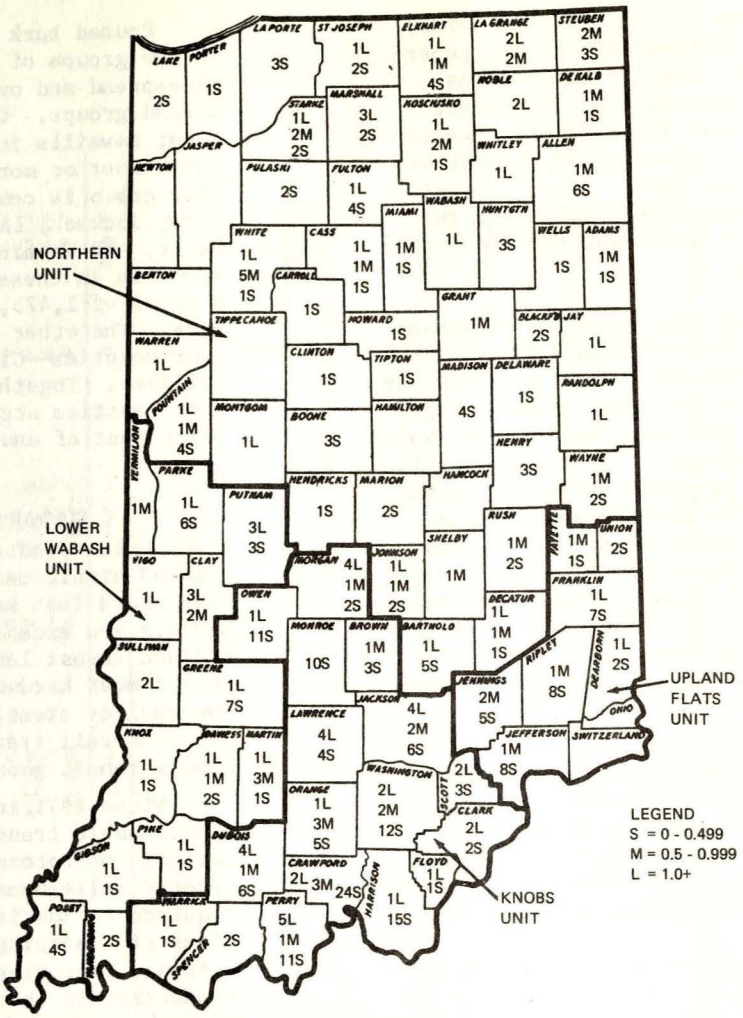

Figure 2.--Number of sawmills in Indiana operating in 1971, by county and by production size-class (million board feet).

SAWMILL RESIDUE[3/]

Sawmill residues are of three types: bark, coarse residue (slabs and edgings and chips from slabs and edgings), and fine residue (sawdust and shavings). The quantity and disposition of these coarse and fine residues generated in Indiana in 1971 are shown below in cords as well as in table 4 in thousand cubic feet.

Type of Use	Coarse (Thousand cords)	Fine (Thousand cords)
Fiber products	52.0	--
Charcoal	.6	--
Industrial fuel	7.6	7.8
Domestic fuel	15.1	1.6
Other uses	2.5	33.8
Not used	34.0	34.6
Total	111.8	77.8

3/ Includes wood residue and bark from all sawmills producing 500,000 board feet or more of lumber and from 50 smaller mills.

Forty-seven percent (52,000 cords) f the coarse (chippable) residue gener- ted at Indiana sawmills in 1971 was sed for pulp, but another 30 percent 34,000 cords) was disposed of as waste table 4). The remaining 23 percent was sed primarily as fuel. By 1971, most f the larger stationary mills had in- talled chippers and debarkers and others ad plans to do so.

The largest concentration of unused oarse residue was produced by mills in outh-central Indiana. This probably can e attributed to the large number of por- able mills in the area that did not have ebarkers or chippers. In one group of ix contiguous counties in south-central ndiana, sawmills in each generated a otal of 1,250 cords or more of unused oarse residue in 1971. This group in- ludes Crawford, Jackson, Lawrence, Mar- in, Orange, and Perry Counties. Togeth- r these counties produced a total of 700 cords of unused chippable residue.

Twelve percent of the fine residue s used for fuel and 43 percent for scellaneous purposes, such as mulch, imal bedding, poultry litter, and soil nditioners and stabilizers. The remain- ng 45 pereent was disposed of as waste.

Twenty-three percent of the bark was ed for fuel and 7 percent for miscella- eous purposes, such as mulch. Less than percent went to pulpmills; the remaining) percent was not used. Bark used for uel is often incidental to the primary uel source, namely wood fiber in slabs id edgings.

Unused fine residue supplies were ncentrated in two groups of contiguous unties. Sawmills in each of these unties produced a total of over 1,250 rds (100,000 cubic feet) of fine resi- ues that were not used. One group is south-central Indiana--Crawford, Jack- n, Perry, Scott, and Washington Counties. gether, sawmills in these five counties counted for a total of 765,000 cubic et. The second group is in southwest diana--Clay, Knox, and Sullivan Counties. gether, sawmills in these three counties counted for a total of 695,000 cubic et of fine residue, of which 409,000 bic feet was produced in Sullivan County one.

Unused bark residue was concentrated in two groups of counties that were more widespread and overlapped the aforementioned groups. One included eight counties; sawmills in each produced 100,000 cubic feet or more of unused bark in 1971. This group is comprised of Crawford, Du-Bois, Jackson, Lawrence, Martin, Perry, Scott, and Washington Counties. Together, sawmills in these counties accounted for a total of 1,475,000 cubic feet of unused bark. The other group is comprised of four counties--Clay, Knox, Putman, and Sullivan. Together, sawmills in these four counties accounted for 1,032,000 cubic feet of unused bark.

SUMMARY AND OUTLOOK

Lumber production probably has increased significantly above the 173 million board feet sawn in 1971.[4/] Pallet markets are exceptionally strong, giving Indiana forest landowners a chance to market most hardwood species including low-quality trees. In view of the resurgence of rail transportation, tie markets should remain good.

Since 1971, in south-central Indiana a noticeable trend has occurred in which portable operators are converting to stationary mills because large timber tracts required to justify good portable operations are becoming scarce, and chip markets are improving. In addition, lumber production in this area has undoubtedly increased, which has been accompanied by an increase in coarse residue. Pulpmills and particleboard plants desiring Indiana coarse sawmill residue should investigate opportunities in this area, particularly the six contiguous counties of Crawford, Jackson, Lawrence, Martin, Orange, and Perry.

Mills in southwest and south-central counties appear to offer the best opportunities to companies needing large quantities of sawdust or bark. As a result of the energy crisis, some firms may wish to consider burning bark and sawdust as a supplement or substitute for natural gas, propane, or fuel oil. Sawmill owners may find the crisis to be an opportunity to market bark and sawdust as fuels and thus lower their residue disposal costs.

4/ Source: U.S. Dep. Comm. Bur. Census, Lumber production and mill stocks, 1971. Curr. Ind. Rep. MA-24T (71)-1.

Table 4.--*Volume of residue[1] produced at Indiana sawmills by kind of material, type of use, and county and Unit, 1971*

LOWER WABASH UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE						BARK	
	TOTAL		COARSE		FINE			
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
CLAY								
FIBER PRODUCTS 2/	0	101.0	0	101.0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	16.9	0	16.9	0	0	0	13.3
MISCELLANEOUS 3/	0	48.9	0	0	0	48.9	0	4.0
NOT USED 4/	0	230.5	0	116.9	0	113.6	0	169.2
TOTAL	0	397.3	0	234.8	0	162.5	0	186.5
DAVIESS								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	11.5	0	11.5	0	0	0	9.2
MISCELLANEOUS 3/	0	47.9	0	0	0	47.9	0	0
NOT USED 4/	0	67.0	0	63.2	0	3.8	0	50.3
TOTAL	0	126.4	0	74.7	0	51.7	0	59.5
GIBSON								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	4.7	0	4.7	0	0	0	3.8
MISCELLANEOUS 3/	0	52.3	0	0	0	52.3	0	0
NOT USED 4/	0	102.8	0	89.7	0	13.1	0	71.3
TOTAL	0	159.8	0	94.4	0	65.4	0	75.1
GREENE								
FIBER PRODUCTS 2/	0	103.5	0	103.5	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	.8	0	.8	0	0	0	.6
MISCELLANEOUS 3/	0	69.5	0	0	0	69.5	0	79.8
NOT USED 4/	0	2.7	0	0	0	2.7	0	2.5
TOTAL	0	176.5	0	104.3	0	72.2	0	82.9
KNOX								
FIBER PRODUCTS 2/	0	271.9	0	271.9	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	19.2	0	0	0	19.2	0	4.4
NOT USED 4/	0	178.4	0	5.5	0	172.9	0	216.2
TOTAL	0	469.5	0	277.4	0	192.1	0	220.6

TABLE 4 CONTINUED — LOWER WABASH UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
MARTIN								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	22.5	0	22.5	0	0	0	17.8
MISCELLANEOUS 3/	0	23.5	0	0	0	23.5	0	0
NOT USED 4/	0	284.1	0	172.6	0	111.5	0	137.2
TOTAL	0	330.1	0	195.1	0	135.0	0	155.0
PARKE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	53.0	0	53.0	0	0	0	42.2
MISCELLANEOUS 3/	0	0	0	0	0	0	0	0
NOT USED 4/	0	36.7	0	0	0	36.7	0	0
TOTAL	0	89.7	0	53.0	0	36.7	0	42.2
PIKE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	.7	0	.7	0	0	0	.6
MISCELLANEOUS 3/	0	38.0	0	0	0	38.0	0	0
NOT USED 4/	0	85.2	0	72.5	0	12.7	0	57.6
TOTAL	0	123.9	0	73.2	0	50.7	0	58.2
POSEY								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	7.2	0	7.2	0	0	0	5.7
MISCELLANEOUS 3/	0	5.0	0	0	0	5.0	0	0
NOT USED 4/	0	96.5	0	57.0	0	39.5	0	45.3
TOTAL	0	108.7	0	64.2	0	44.5	0	51.0
PUTNAM								
FIBER PRODUCTS 2/	0	263.0	0	263.0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	6.4	0	6.4	0	0	0	1.0
MISCELLANEOUS 3/	0	145.8	0	0	0	145.8	0	32.8
NOT USED 4/	0	59.0	0	10.8	0	48.2	0	189.0
TOTAL	0	474.2	0	280.2	0	194.0	0	222.8

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TABLE 4 CONTINUED — LOWER WABASH UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE						BARK	
	TOTAL		COARSE		FINE			
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
SULLIVAN								
FIBER PRODUCTS 2/	0	586.0	0	586.0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	19.6	0	19.6	0	0	0	0
MISCELLANEOUS 3/	0	10.2	0	0	0	10.2	0	23.7
NOT USED 4/	0	409.1	0	0	0	409.1	0	457.7
TOTAL	0	1024.9	0	605.6	0	419.3	0	481.4
VERMILLION								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	3.7	0	3.7	0	0	0	2.9
MISCELLANEOUS 3/	0	0	0	0	0	0	0	0
NOT USED 4/	0	58.6	0	33.1	0	25.5	0	26.3
TOTAL	0	62.3	0	36.8	0	25.5	0	29.2
VIGO								
FIBER PRODUCTS 2/	0	60.5	0	60.5	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	37.7	0	0	0	37.7	0	2.4
NOT USED 4/	0	4.2	0	0	0	4.2	0	45.7
TOTAL	0	102.4	0	60.5	0	41.9	0	48.1
ALL COUNTIES LOWER WABASH UNIT								
FIBER PRODUCTS 2/	0	1385.9	0	1385.9	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	147.0	0	147.0	0	0	0	97.1
MISCELLANEOUS 3/	0	498.0	0	0	0	498.0	0	147.1
NOT USED 4/	0	1614.8	0	621.3	0	993.5	0	1468.3
TOTAL	0	3645.7	0	2154.2	0	1491.5	0	1712.5
KNOBS UNIT								
BROWN								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	39.5	0	39.5	0	0	0	31.4
MISCELLANEOUS 3/	0	21.7	0	0	0	21.7	0	0
NOT USED 4/	0	5.7	0	0	0	5.7	0	0
TOTAL	0	66.9	0	39.5	0	27.4	0	31.4

TABLE CONTINUED ON NEXT PAGE

TABLE 4 CONTINUED — KNOBS UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE						BARK	
	TOTAL		COARSE		FINE			
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
CLARK								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	71.1	0	42.0	0	29.1	0	33.4
DOMESTIC FUEL	0	15.6	0	15.6	0	0	0	12.4
MISCELLANEOUS 3/	0	45.9	0	0	0	45.9	0	0
NOT USED 4/	0	57.3	0	54.6	0	2.7	0	43.4
TOTAL	0	189.9	0	112.2	0	77.7	0	89.2
CRAWFORD								
FIBER PRODUCTS 2/	0	95.9	0	95.9	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	8.0	0	8.0	0	0	0	6.4
MISCELLANEOUS 3/	0	49.8	0	0	0	49.8	0	0
NOT USED 4/	0	227.3	0	121.3	0	106.0	0	172.6
TOTAL	0	381.0	0	225.2	0	155.8	0	179.0
DUBOIS								
FIBER PRODUCTS 2/	0	46.8	0	46.8	0	0	0	0
CHARCOAL	0	46.8	0	46.8	0	0	0	0
INDUSTRIAL FUEL	0	1.7	0	1.7	0	0	0	1.3
DOMESTIC FUEL	0	114.5	0	114.5	0	0	0	86.4
MISCELLANEOUS 3/	0	122.7	0	0	0	122.7	0	0
NOT USED 4/	0	162.7	0	82.8	0	79.9	0	144.8
TOTAL	0	495.2	0	292.6	0	202.6	0	232.5
FLOYD								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	23.2	0	0	0	23.2	0	0
MISCELLANEOUS 3/	0	86.3	0	86.3	0	0	0	0
NOT USED 4/	0	52.8	0	9.6	0	43.2	0	76.3
TOTAL	0	162.3	0	95.9	0	66.4	0	76.3
HARRISON								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	95.9	0	56.7	0	39.2	0	45.0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	0	0	0	0	0	0	0
NOT USED 4/	0	2.7	0	1.6	0	1.1	0	1.3
TOTAL	0	98.6	0	58.3	0	40.3	0	46.3

TABLE CONTINUED ON NEXT PAGE

TABLE 4 CONTINUED — KNOBS UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
JACKSON								
FIBER PRODUCTS 2/	0	75.9	0	75.9	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	2.8	0	2.8	0	0	0	2.3
MISCELLANEOUS 3/	0	38.3	0	0	0	38.3	0	0
NOT USED 4/	0	450.1	0	256.3	0	193.8	0	264.0
TOTAL	0	567.1	0	335.0	0	232.1	0	266.3
LAWRENCE								
FIBER PRODUCTS 2/	0	82.2	0	82.2	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	4.9	0	4.9	0	0	0	1.7
MISCELLANEOUS 3/	0	72.1	0	0	0	72.1	0	0
NOT USED 4/	0	190.2	0	102.2	0	88.0	0	182.2
TOTAL	0	349.4	0	189.3	0	160.1	0	183.9
MONROE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	1.1	0	1.1	0	0	0	0
MISCELLANEOUS 3/	0	2.4	0	0	0	2.4	0	0
NOT USED 4/	0	2.5	0	2.5	0	0	0	2.8
TOTAL	0	6.0	0	3.6	0	2.4	0	2.8
MORGAN								
FIBER PRODUCTS 2/	0	170.5	0	170.5	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	114.2	0	114.2	0	0	0	90.9
MISCELLANEOUS 3/	0	154.4	0	0	0	154.4	0	89.2
NOT USED 4/	0	145.1	0	60.4	0	84.7	0	94.4
TOTAL	0	584.2	0	345.1	0	239.1	0	274.5
ORANGE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	48.8	0	28.8	0	20.0	0	22.9
DOMESTIC FUEL	0	26.6	0	24.0	0	2.6	0	19.1
MISCELLANEOUS 3/	0	33.9	0	0	0	33.9	0	0
NOT USED 4/	0	163.2	0	108.2	0	55.0	0	86.0
TOTAL	0	272.5	0	161.0	0	111.5	0	128.0

TABLE CONTINUED ON NEXT PAGE

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
OWEN								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	45.6	0	45.6	0	0	0	36.2
MISCELLANEOUS 3/	0	47.3	0	0	0	47.3	0	0
NOT USED 4/	0	35.7	0	30.4	0	5.3	0	24.2
TOTAL	0	128.6	0	76.0	0	52.6	0	60.4
PERRY								
FIBER PRODUCTS 2/	0	223.4	0	223.4	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	9.9	0	9.9	0	0	0	7.9
MISCELLANEOUS 3/	0	13.8	0	0	0	13.8	0	0
NOT USED 4/	0	420.4	0	161.2	0	259.2	0	305.7
TOTAL	0	667.5	0	394.5	0	273.0	0	313.6
SCOTT								
FIBER PRODUCTS 2/	5.1	121.7	5.1	121.7	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	2.9	0	2.9	0	0	0	2.3
MISCELLANEOUS 3/	0	20.3	0	0	0	20.3	0	0
NOT USED 4/	3.5	160.1	0	55.6	3.5	104.5	4.0	140.9
TOTAL	8.6	305.0	5.1	180.2	3.5	124.8	4.0	143.2
WARRICK								
FIBER PRODUCTS 2/	.7	376.8	.7	376.8	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	.3	182.6	0	0	.3	182.6	.4	239.6
DOMESTIC FUEL	0	21.3	0	21.3	0	0	0	16.9
MISCELLANEOUS 3/	.1	93.0	0	0	.1	93.0	.1	29.9
NOT USED 4/	0	0	0	0	0	0	.1	29.9
TOTAL	1.1	673.7	.7	398.1	.4	275.6	.6	316.3
WASHINGTON								
FIBER PRODUCTS 2/	0	70.8	0	70.8	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	23.0	0	21.5	0	1.5	0	17.1
MISCELLANEOUS 3/	0	22.8	0	0	0	22.8	0	0
NOT USED 4/	0	192.1	0	90.1	0	102.0	0	128.0
TOTAL	0	308.7	0	182.4	0	126.3	0	145.1

TABLE CONTINUED ON NEXT PAGE

TABLE 4 CONTINUED — KNOBS UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE						BARK	
	TOTAL		COARSE		FINE			
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
ALL COUNTIES KNOBS UNIT								
FIBER PRODUCTS 2/	5.8	1264.0	5.8	1264.0	0	0	0	0
CHARCOAL	0	46.8	0	46.8	0	0	0	0
INDUSTRIAL FUEL	.3	400.1	0	129.2	.3	270.9	.4	342.2
DOMESTIC FUEL	0	453.1	0	425.8	0	27.3	0	331.0
MISCELLANEOUS 3/	.1	824.7	0	86.3	.1	738.4	.1	119.1
NOT USED 4/	3.5	2267.9	0	1136.8	3.5	1131.1	4.1	1696.5
TOTAL	9.7	5256.6	5.8	3088.9	3.9	2167.7	4.6	2488.8
UPLAND FLATS UNIT								
DEARBORN								
FIBER PRODUCTS 2/	0	86.8	0	86.8	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	1.3	0	0	0	1.3	0	0
MISCELLANEOUS 3/	0	12.3	0	0	0	12.3	0	34.5
NOT USED 4/	0	50.4	0	2.3	0	48.1	0	36.4
TOTAL	0	150.8	0	89.1	0	61.7	0	70.9
FAYETTE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	12.0	0	12.0	0	0	0	9.6
MISCELLANEOUS 3/	0	27.8	0	0	0	27.8	0	0
NOT USED 4/	0	28.1	0	28.1	0	0	0	22.3
TOTAL	0	67.9	0	40.1	0	27.8	0	31.9
FRANKLIN								
FIBER PRODUCTS 2/	0	90.4	0	90.4	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	3.8	0	3.8	0	0	0	2.9
MISCELLANEOUS 3/	0	65.5	0	0	0	65.5	0	0
NOT USED 4/	0	10.5	0	6.3	0	4.2	0	77.0
TOTAL	0	170.2	0	100.5	0	69.7	0	79.9
JEFFERSON								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	3.6	0	3.6	0	0	0	2.8
DOMESTIC FUEL	.1	11.9	.1	11.9	0	0	.1	7.1
MISCELLANEOUS 3/	.1	13.1	0	0	.1	13.1	0	0
NOT USED 4/	0	60.4	0	37.1	0	23.3	0	31.8
TOTAL	.2	89.0	.1	52.6	.1	36.4	.1	41.7

TABLE CONTINUED ON NEXT PAGE

TABLE 4 CONTINUED — UPLAND FLATS UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE						BARK	
	TOTAL		COARSE		FINE			
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
JENNINGS								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	24.8	0	24.8	0	0	0	19.7
MISCELLANEOUS 3/	0	16.4	0	0	0	16.4	0	0
NOT USED 4/	0	29.7	0	17.1	0	12.6	0	13.6
TOTAL	0	70.9	0	41.9	0	29.0	0	33.3
RIPLEY								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	16.0	0	10.4	0	5.6	0	8.3
MISCELLANEOUS 3/	0	25.4	0	0	0	25.4	0	0
NOT USED 4/	0	39.0	0	37.1	0	1.9	0	29.6
TOTAL	0	80.4	0	47.5	0	32.9	0	37.9
ALL COUNTIES UPLAND FLATS UNIT								
FIBER PRODUCTS 2/	0	177.2	0	177.2	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	3.6	0	3.6	0	0	0	2.8
DOMESTIC FUEL	.1	69.8	.1	62.9	0	6.9	.1	47.6
MISCELLANEOUS 3/	.1	160.5	0	0	.1	160.5	0	34.5
NOT USED 4/	0	218.1	0	128.0	0	90.1	0	210.7
TOTAL	.2	629.2	.1	371.7	.1	257.5	.1	295.6
NORTHERN UNIT								
ADAMS								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	7.8	0	7.8	0	0	0	6.2
MISCELLANEOUS 3/	0	26.9	0	0	0	26.9	0	0
NOT USED 4/	0	31.1	0	31.1	0	0	0	24.8
TOTAL	0	65.8	0	38.9	0	26.9	0	31.0
ALLEN								
FIBER PRODUCTS 2/	0	38.1	0	38.1	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	16.2	0	16.2	0	0	0	12.9
MISCELLANEOUS 3/	0	37.6	0	0	0	37.6	0	9.1
NOT USED 4/	0	0	0	0	0	0	0	21.2
TOTAL	0	91.9	0	54.3	0	37.6	0	43.2

TABLE CONTINUED ON NEXT PAGE

TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
BARTHOLOMEW								
FIBER PRODUCTS 2/	0	113.9	0	113.9	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	74.9	0	0	0	74.9	0	4.5
NOT USED 4/	0	3.9	0	0	0	3.9	0	86.0
TOTAL	0	192.7	0	113.9	0	78.8	0	90.5
BLACKFORD								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	1.6	0	1.6	0	0	0	1.2
MISCELLANEOUS 3/	0	2.2	0	0	0	2.2	0	0
NOT USED 4/	0	26.5	0	16.3	0	10.2	0	12.9
TOTAL	0	30.3	0	17.9	0	12.4	0	14.1
BOONE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	1.0	0	1.0	0	0	0	.8
MISCELLANEOUS 3/	0	7.0	0	0	0	7.0	0	0
NOT USED 4/	0	9.1	0	9.1	0	0	0	7.2
TOTAL	0	17.1	0	10.1	0	7.0	0	8.0
CASS								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	2.6	0	2.6	0	0	0	2.1
MISCELLANEOUS 3/	0	59.6	0	0	0	59.6	0	0
NOT USED 4/	0	101.0	0	93.9	0	7.1	0	74.7
TOTAL	0	163.2	0	96.5	0	66.7	0	76.8
DECATUR								
FIBER PRODUCTS 2/	0	136.4	0	136.4	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	4.4	0	4.4	0	0	0	3.5
MISCELLANEOUS 3/	0	102.7	0	0	0	102.7	0	0
NOT USED 4/	0	61.2	0	39.3	0	21.9	0	139.6
TOTAL	0	304.7	0	180.1	0	124.6	0	143.1

TABLE CONTINUED ON NEXT PAGE

TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE						BARK	
	TOTAL		COARSE		FINE			
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
DEKALB								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	10.3	0	8.1	0	2.2	0	2.6
DOMESTIC FUEL	0	25.8	0	24.7	0	1.1	0	13.2
MISCELLANEOUS 3/	0	28.3	0	3.2	0	25.1	0	7.7
NOT USED 4/	0	19.0	0	13.3	0	5.7	0	15.7
TOTAL	0	83.4	0	49.3	0	34.1	0	39.2
ELKHART								
FIBER PRODUCTS 2/	0	162.3	0	162.3	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	53.4	0	30.9	0	22.5	0	24.6
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	109.2	0	0	0	109.2	0	54.3
NOT USED 4/	0	25.8	0	14.0	0	11.8	0	85.9
TOTAL	0	350.7	0	207.2	0	143.5	0	164.8
FOUNTAIN								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	5.8	0	5.8	0	0	0	4.6
MISCELLANEOUS 3/	0	24.7	0	0	0	24.7	0	0
NOT USED 4/	0	159.2	0	106.3	0	52.9	0	84.5
TOTAL	0	189.7	0	112.1	0	77.6	0	89.1
FULTON								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	306.4	0	188.8	0	117.6	0	150.1
DOMESTIC FUEL	0	2.3	0	2.3	0	0	0	1.9
MISCELLANEOUS 3/	0	14.7	0	0	0	14.7	0	0
NOT USED 4/	0	0	0	0	0	0	0	0
TOTAL	0	323.4	0	191.1	0	132.3	0	152.0
GRANT								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	2.5
DOMESTIC FUEL	0	10.5	0	10.5	0	0	0	0
MISCELLANEOUS 3/	0	14.6	0	0	0	14.6	0	0
NOT USED 4/	0	10.5	0	10.5	0	0	0	14.2
TOTAL	0	35.6	0	21.0	0	14.6	0	16.7

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TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
HENDRICKS								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	.2	0	.2	0	0	0	.1
MISCELLANEOUS 3/	0	.4	0	0	0	.4	0	0
NOT USED 4/	0	.5	0	.5	0	0	0	.4
TOTAL	0	1.1	0	.7	0	.4	0	.5
HENRY								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	12.2	0	12.2	0	0	0	9.7
MISCELLANEOUS 3/	0	11.9	0	0	0	11.9	0	0
NOT USED 4/	0	5.5	0	5.3	0	.2	0	4.2
TOTAL	0	29.6	0	17.5	0	12.1	0	13.9
HOWARD								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	13.8	0	13.8	0	0	0	10.9
MISCELLANEOUS 3/	0	9.5	0	0	0	9.5	0	0
NOT USED 4/	0	0	0	0	0	0	0	0
TOTAL	0	23.3	0	13.8	0	9.5	0	10.9
HUNTINGTON								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	7.0	0	7.0	0	0	0	5.6
MISCELLANEOUS 3/	0	14.1	0	0	0	14.1	0	0
NOT USED 4/	0	13.3	0	13.3	0	0	0	10.5
TOTAL	0	34.4	0	20.3	0	14.1	0	16.1
JAY								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	57.0	0	57.0	0	0	0	45.3
MISCELLANEOUS 3/	0	39.5	0	0	0	39.5	0	0
NOT USED 4/	0	0	0	0	0	0	0	0
TOTAL	0	96.5	0	57.0	0	39.5	0	45.3

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TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
JOHNSON								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	239.0	0	137.7	0	101.3	0	116.4
DOMESTIC FUEL	0	10.9	0	10.9	0	0	0	8.7
MISCELLANEOUS 3/	0	17.5	0	8.6	0	8.9	0	0
NOT USED 4/	0	1.9	0	1.9	0	0	0	1.5
TOTAL	0	269.3	0	159.1	0	110.2	0	126.6
KOSCIUSKO								
FIBER PRODUCTS 2/	0	33.7	0	33.7	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	47.6	0	47.6	0	0	0	37.9
MISCELLANEOUS 3/	0	92.5	0	0	0	92.5	0	0
NOT USED 4/	0	52.2	0	52.2	0	0	0	68.3
TOTAL	0	226.0	0	133.5	0	92.5	0	106.2
LAGRANGE								
FIBER PRODUCTS 2/	0	101.4	0	101.4	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	83.7	0	83.7	0	0	0	66.6
MISCELLANEOUS 3/	0	128.2	0	0	0	128.2	0	80.6
NOT USED 4/	0	61.8	0	36.5	0	25.3	0	29.0
TOTAL	0	375.1	0	221.6	0	153.5	0	176.2
LAPORTE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	4.9	0	4.9	0	0	0	3.9
MISCELLANEOUS 3/	0	3.4	0	0	0	3.4	0	0
NOT USED 4/	0	0	0	0	0	0	0	0
TOTAL	0	8.3	0	4.9	0	3.4	0	3.9
MARION								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	19.3	0	19.3	0	0	0	15.4
MISCELLANEOUS 3/	0	13.4	0	0	0	13.4	0	0
NOT USED 4/	0	0	0	0	0	0	0	0
TOTAL	0	32.7	0	19.3	0	13.4	0	15.4

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TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
MARSHALL								
FIBER PRODUCTS 2/	0	96.7	0	96.7	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	2.4	0	2.4	0	0	0	1.9
DOMESTIC FUEL	0	87.5	0	87.5	0	0	0	69.5
MISCELLANEOUS 3/	0	130.3	0	0	0	130.3	0	19.2
NOT USED 4/	0	84.3	0	50.5	0	33.8	0	97.9
TOTAL	0	401.2	0	237.1	0	164.1	0	188.5
MIAMI								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	14.0	0	14.0	0	0	0	11.2
DOMESTIC FUEL	0	17.0	0	17.0	0	0	0	13.5
MISCELLANEOUS 3/	0	30.9	0	0	0	30.9	0	0
NOT USED 4/	0	19.4	0	17.0	0	2.4	0	13.5
TOTAL	0	81.3	0	48.0	0	33.3	0	38.2
MONTGOMERY								
FIBER PRODUCTS 2/	0	87.4	0	87.4	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	60.5	0	0	0	60.5	0	0
NOT USED 4/	0	0	0	0	0	0	0	69.5
TOTAL	0	147.9	0	87.4	0	60.5	0	69.5
NOBLE								
FIBER PRODUCTS 2/	0	173.6	0	173.6	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	17.2	0	15.6	0	1.6	0	0
MISCELLANEOUS 3/	0	.8	0	0	0	.8	0	.9
NOT USED 4/	0	138.5	0	5.9	0	132.6	0	154.1
TOTAL	0	330.1	0	195.1	0	135.0	0	155.0
RANDOLPH								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	168.9	0	99.8	0	69.1	0	0
NOT USED 4/	0	0	0	0	0	0	0	79.3
TOTAL	0	168.9	0	99.8	0	69.1	0	79.3

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TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
RUSH								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	12.2	0	12.2	0	0	0	9.7
MISCELLANEOUS 3/	0	15.2	0	0	0	15.2	0	0
NOT USED 4/	0	13.9	0	12.2	0	1.7	0	9.7
TOTAL	0	41.3	0	24.4	0	16.9	0	19.4
ST. JOSEPH								
FIBER PRODUCTS 2/	0	56.6	0	56.6	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	182.9	0	84.9	0	98.0	0	112.5
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	0	0	0	0	0	0	0
NOT USED 4/	0	0	0	0	0	0	0	0
TOTAL	0	239.5	0	141.5	0	98.0	0	112.5
SHELBY								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	24.8	0	24.8	0	0	0	1.3
MISCELLANEOUS 3/	0	22.9	0	0	0	22.9	0	0
NOT USED 4/	0	8.3	0	8.3	0	0	0	25.0
TOTAL	0	56.0	0	33.1	0	22.9	0	26.3
STARKE								
FIBER PRODUCTS 2/	0	39.9	0	39.9	0	0	0	31.7
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	13.8	0	0	0	13.8	0	0
NOT USED 4/	0	106.2	0	54.6	0	51.6	0	43.4
TOTAL	0	159.9	0	94.5	0	65.4	0	75.1
STEUBEN								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	1.2	0	1.2	0	0	0	1.0
DOMESTIC FUEL	0	54.5	0	54.5	0	0	0	31.7
MISCELLANEOUS 3/	0	44.7	0	2.5	0	42.2	0	3.9
NOT USED 4/	0	4.9	0	4.1	0	.8	0	13.0
TOTAL	0	105.3	0	62.3	0	43.0	0	49.6

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TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE						BARK	
	TOTAL		COARSE		FINE			
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
WABASH								
FIBER PRODUCTS 2/	0	48.2	0	48.2	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	33.4	0	0	0	33.4	0	1.9
NOT USED 4/	0	0	0	0	0	0	0	36.4
TOTAL	0	81.6	0	48.2	0	33.4	0	38.3
WARREN								
FIBER PRODUCTS 2/	0	56.1	0	56.1	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	0	0	0	0	0	0	0
MISCELLANEOUS 3/	0	.4	0	0	0	.4	0	0
NOT USED 4/	0	38.5	0	0	0	38.5	0	44.6
TOTAL	0	95.0	0	56.1	0	38.9	0	44.6
WAYNE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	2.8	0	2.8	0	0	0	2.2
MISCELLANEOUS 3/	0	18.8	0	0	0	18.8	0	0
NOT USED 4/	0	32.9	0	29.4	0	3.5	0	23.4
TOTAL	0	54.5	0	32.2	0	22.3	0	25.6
WHITE								
FIBER PRODUCTS 2/	0	0	0	0	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	8.5	0	8.5	0	0	0	6.8
MISCELLANEOUS 3/	0	14.7	0	0	0	14.7	0	0
NOT USED 4/	0	280.2	0	170.8	0	109.4	0	135.8
TOTAL	0	303.4	0	179.3	0	124.1	0	142.6
WHITLEY								
FIBER PRODUCTS 2/	0	133.5	0	133.5	0	0	0	0
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	0	0	0	0	0	0	0
DOMESTIC FUEL	0	92.4	0	0	0	92.4	0	0
MISCELLANEOUS 3/	0	0	0	0	0	0	0	0
NOT USED 4/	0	0	0	0	0	0	0	106.1
TOTAL	0	225.9	0	133.5	0	92.4	0	106.1

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TABLE 4 CONTINUED — NORTHERN UNIT

TYPE OF USE BY COUNTY OR UNIT	WOOD RESIDUE							
	TOTAL		COARSE		FINE		BARK	
	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD	SOFTWOOD	HARDWOOD
	THOUSAND CUBIC FEET							
ALL COUNTIES NORTHERN UNIT								
FIBER PRODUCTS 2/	0	1277.8	0	1277.8	0	0	0	31.7
CHARCOAL	0	0	0	0	0	0	0	0
INDUSTRIAL FUEL	0	809.6	0	468.0	0	341.6	0	422.8
DOMESTIC FUEL	0	651.5	0	556.4	0	95.1	0	385.2
MISCELLANEOUS 3/	0	1388.1	0	114.1	0	1274.0	0	182.1
NOT USED 4/	0	1309.6	0	796.3	0	513.3	0	1532.3
TOTAL	0	5436.6	0	3212.6	0	2224.0	0	2554.1
ALL UNITS INDIANA								
ALL UNITS INDIANA								
FIBER PRODUCTS 2/	5.8	4104.9	5.8	4104.9	0	0	0	31.7
CHARCOAL	0	46.8	0	46.8	0	0	0	0
INDUSTRIAL FUEL	.3	1213.3	0	600.8	.3	612.5	.4	767.8
DOMESTIC FUEL	.1	1321.4	.1	1192.1	0	129.3	.1	860.9
MISCELLANEOUS 3/	.2	2871.3	0	200.4	.2	2670.9	.1	482.8
NOT USED 4/	3.5	5410.4	0	2682.4	3.5	2728.0	4.1	4907.8
TOTAL	9.9	14968.1	5.9	8827.4	4.0	6140.7	4.7	7051.0

1/ INCLUDES WOOD RESIDUE AND BARK GENERATED AT ALL SAWMILLS PRODUCING 500,000 BOARD FEET OR MORE OF LUMBER PLUS 50 SMALLER MILLS.
2/ FOR MANUFACTURE OF PULP, HARDBOARD, OR ROOFING FELT.
3/ INCLUDES USES SUCH AS LIVESTOCK BEDDING, POULTRY LITTER, MULCH, AND SPECIALTY ITEMS.
4/ INCLUDES RESIDUE BURNED AS WASTE.

STUDY METHODS

This paper resulted from a cooperative study by the North Central Forest Experiment Station and the Indiana Division of Forestry. All Indiana sawmills were canvassed by mail questionnaire from the North Central Forest Experiment Station with two followup mailings to nonrespondents. Most nonrespondents who produced 500,000 board feet or more of lumber annually were contacted in person or by phone by the Indiana Division of Forestry. Data for the few remaining nonrespondents cutting 500,000 board feet or more annually were estimated by the Indiana Division of Forestry using their previous knowledge and experience with the mills.

Similarly, out-of-State mills using Indiana saw logs were contacted by two successive mailings of the questionnaire from the North Central Forest Experiment Station.

Small Indiana sawmills were divided into two groups--mills sawing less than 100,000 board feet annually and mills sawing between 100,000 and 499,000 board feet annually. For each group, mills responding to the mail questionnaire were the sample used to estimate log receipts for the group.

Sampling errors for saw log receipts and production in Indiana were ± 0.83 percent and ± 0.95 percent, respectively, assuming the small mills responding to the mail questionnaire provided an unbiased estimate for this segment of the population.

COMMON AND SCIENTIFIC NAMES OF TREE SPECIES MENTIONED

Shortleaf pine . . . . . *Pinus echinata*
Virginia pine . . . . . *Pinus virginiana*

White oaks:
- White oak . . . . . *Quercus alba*
- Swamp white oak . . . . *Quercus bicolor*
- Bur oak . . . . . *Quercus macrocarpa*
- Swamp chestnut oak . . *Quercus michauxii*
- Chinkapin oak . . *Quercus muehlenbergii*
- Chestnut oak . . . . . *Quercus prinus*
- Post oak . . . . . *Quercus stellata*

Red oaks:
- Northern red oak . . . . . *Quercus rubra*
- Cherrybark oak. . *Quercus falcata* var. *pagodaefolia*
- Shumard oak . . . . . *Quercus shumardii*
- Black oak . . . . . *Quercus velutina*
- Scarlet oak . . . . . *Quercus coccinea*
- Southern red oak . . . . *Quercus falcata*
- Shingle oak . . . . . *Quercus imbricaria*
- Pin oak . . . . . *Quercus palustris*

Hickory group:
- Mockernut hickory . . . *Carya tomentosa*
- Shagbark hickory . . . . . *Carya ovata*
- Shellbark hickory . . . *Carya laciniosa*
- Pecan . . . . . *Carya illinoensis*
- Pignut hickory . . . . . *Carya glabra*
- Bitternut hickory . . *Carya cordiformis*

Hard maple . . . . . *Acer saccharum*

Soft maple group:
- Red maple . . . . . *Acer rubrum*
- Silver maple . . . . . *Acer saccharinum*

Beech . . . . . *Fagus grandifolia*
Sweetgum . . . . . *Liquidambar styraciflua*
Blackgum . . . *Nyssa sylvatica* var. *biflora*

Ash group:
- White ash . . . . . *Fraxinus americana*
- Black ash . . . . . *Fraxinus nigra*
- Green ash . . . . *Fraxinus pennsylvanica*
- Blue ash . . . . . *Fraxinus quadrangulata*

Cottonwood . . . . . *Populus deltoides*

Aspen group:
- Bigtooth aspen . . *Populus grandidentata*
- Quaking aspen . . . *Populus tremuloides*

Basswood . . . . . *Tilia americana*
Yellow-poplar . . . *Liriodendron tulipifera*
Black walnut . . . . . *Juglans nigra*
Black cherry . . . . . *Prunus serotina*

Elm group:
- Winged elm . . . . . *Ulmus alata*
- American elm . . . . . *Ulmus americana*
- Siberian elm . . . . . *Ulmus pumila*
- Slippery elm . . . . . *Ulmus rubra*
- Rock elm . . . . . *Ulmus thomasii*

American sycamore . . *Platanus occidentalis*

☆U.S. Government Printing Office: 1974 — 763-193

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1974. Indiana saw log production and sawmill industry, 1971.
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(USDA For. Serv. Resour. Bull. NC-20)

Shows Indiana saw log production by species and State of destination in 1971, and saw log receipts in Indiana by species, State of origin, and Survey Unit. Comparisons with similar data in 1966 are made and reasons for changes in production and receipts are given. Lumber market conditions and sawmill size and locations are discussed. Gives the volume of wood and bark residue produced at Indiana sawmills in 1971 by type of use, by county, and by softwoods and hardwoods.

OXFORD: 832.10:792:832.1(772). KEY WORDS: receipts, wood residue, bark, markets, county.

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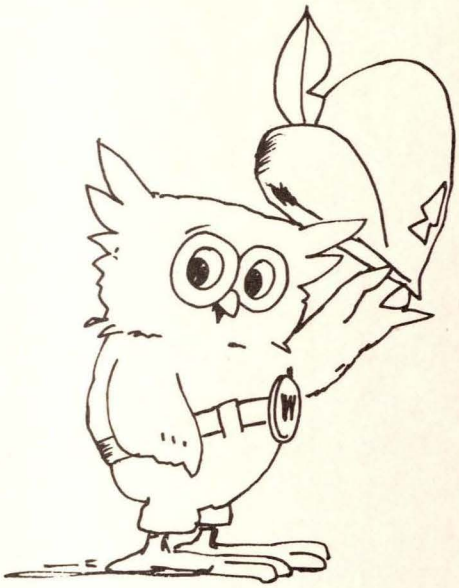

Nature is beautiful...leave only your footprints.